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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/787,795      | 03/23/2001  | Minako Ide           | L9289.01123         | 1009             |

7590 08/23/2004  
Stevens Davis Miller & Mosher  
1615 L Street N W Suite 850  
Washington, DC 20036

| EXAMINER |
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PATHAK, SUDHANSHU C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2634

DATE MAILED: 08/23/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/787,795

Applicant(s)

IDE, MINAKO

Examiner

Sudhanshu C. Pathak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on March 23<sup>rd</sup>, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on March 23<sup>rd</sup>, 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-to-8 are pending in the application.

### *Specification*

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The abstract of the disclosure discloses each of the element(s) comprising the frequency offset detecting apparatus as disclosed in the first embodiment in the Fig. 4. The abstract discloses each element and describes its function, but does not disclose how the apparatus (as described by the elements) as described achieves the desired result of determining the frequency offset. Furthermore, the abstract does not disclose the nature of an improvement in an old apparatus, process, product, or composition.

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3. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

The specification seems to be a direct translation into English.

#### ***Drawings***

4. Figures 1-3 should be designated by a legend such as "Prior Art" because only that which is known is illustrated.

Corrective Action is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The claims 1-8 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding to Claims 1-8, the claim(s) refers to a first detecting means, it is not clear that this refers to elements 105 or 106. Furthermore, the claims refers to a:

"first detecting means for subtracting a previously held phase offset quantity owing to data modulation from a phase shift angle detected from one-symbol phase difference information of a received known symbol".

However, the first detecting means converts, the difference between the demodulated signal and the delayed (by one symbol), into a phase angle

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(Specification, Page 5, lines 9-14 & Fig. 4 & Specification, Page 9, lines 18-22). However, the specification discloses a first subtractor means (Fig. 4, elements 108 & Specification, Page 10, lines 4-10) for subtracting a previously held phase offset quantity from the phase shift angle detected from the first detecting means. Furthermore, it is not clear the stored phase offsets are due to the known transmitted data (Specification, Page 10, lines 1-3). Furthermore, the claims also refers to a:

"second detecting means for subtracting a previously held phase offset quantity owing to data modulation from a phase shift angle detected from two-symbol phase difference information of a received known symbol".

Similar to the first detecting means the second detecting means converts, the difference between the demodulated signal and the delayed (by two symbols), into a phase angle (Specification, Page 5, lines 9-14 & Fig. 4 & Specification, Page 9, lines 18-22). However, the specification discloses a second subtractor means (Fig. 4, elements 109 & Specification, Page 10, lines 4-10) for subtracting a previously held phase offset quantity from the phase shift angle detected from the second detecting means. The specification also discloses a multiplying means for multiplying the subtracted signal from the second subtractor means by  $\frac{1}{2}$  (Fig. 4, element 110 & Specification, Page 10, lines 7-10), this function is not performed in the second detector means as recited in the claim. Furthermore, the claims also refers to a:

"a averaging means for averaging the output of the said first detecting means and an output value of said second detecting means for an arbitrary interval, and for outputting an averaged output value".

The averaging means averages the output of the subtractor means, for subtracting a previously held phase offset quantity from the phase shift angle detected from the first detecting means, and an output value from the multiplying means.

### ***Conclusion***

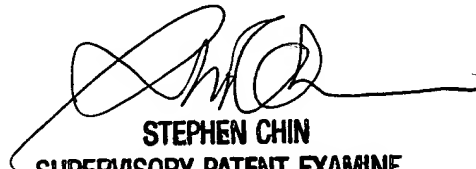
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhanshu C. Pathak whose telephone number is (703)-305-0341. The examiner can normally be reached on M-F: 9am-6pm.

- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (703)-305-4714.
- The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sudhanshu C. Pathak



**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINE**  
**TECHNOLOGY CENTER 2800**